Atty Dkt. No.: RICE-014 USSN: 09/509.482

CHANGES MADE." Applicants note that those claims not amended herein are being reiterated solely for the convenience of the Examiner.

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AMENDMENTS

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IN THE FIGURES

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Please replace Figures 1 and 4-8 with the amended Figures 1, 4, 5A-5D, 6A-6D, 7A-7D, and 8A-8D as indicated in the Request for Approval of Proposed Drawing Amendment submitted herewith.

IN THE SPECIFICATION:

Delete pages 20-28 of the specification (the Sequence Listing).

Renumber pages 29-33 as pages 20-24.

Insert new page 25 entitled "Abstract of the Invention" after newly renumbered page 24 (after the claims).

Insert the enclosed document entitled "Sequence Listing", numbered beginning with page 1 after the abstract.

Replace the paragraph bridging pages 7-8 with the following:

FIG. 1A Human VDR gene locus. Four overlapping cosmid clones were isolated from a human lymphocyte genomic library (Stratagene) and directly sequenced. Clone J5 extends from the 5' flanking region to intron 2; AE, from intron 1b to intron 5; D2, from intron 3 to the 3' UTR; WE, from intron 6 through the 3' flanking region. Sequence upstream of exon 1f was obtained by anchored PCR from genomic DNA. FIG. 1B Structure of hVDR transcripts.

Transcripts 1–5 originate from exon 1a. Transcript 1 corresponds to the published cDNA (1).

Transcripts 6–10 originate from exon 1d and transcripts 11–14 originate from exon 1f. Boxed numbers indicate the major transcript (based on the relative intensities of the multiple PCR products) within each exon-specific group of transcripts generated with a single primer set.

While all transcripts have a translation initiation codon in exon 2, exon 1d transcripts have the potential to initiate translation upstream in exon 1d, with transcripts 6 and 9 encoding VDR proteins with extended N termini. FIG. 1C N-terminal variant proteins encoded by novel hVDR transcripts. Transcript 1 corresponds to the published cDNA sequence (1) and encodes the 427-aa hVDR protein. Transcripts 6 and 9 code for a protein with an extra 50 aa or 23 aa, respectively, at the N-terminal. The 23 aa of the hVDR A/B domain are shown in bold.



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Replace the paragraphs at page 9 lines 17 to 35 with the following:

FIGS. 5A-5D. Provides the nucleotide sequence corresponding to transcript 6 (see figure 1) (SEQ ID NO: 2), together with the predicted amino acid sequence (SEQ ID NO: 9) of the encoded protein. Nucleotides 1-96 correspond to exon 1d; nucleotides 97-1463 correspond to exons 1c to the stop codon in exon 9 (or nucleotides -83-1283 of the hVDR cDNA (1)).

FIGS. 6A-6D. Provides the nucleotide sequence corresponding to transcript 9 (see figure 1) (SEQ ID NO: 3), together with the predicted amino acid sequence (SEQ ID NO: 10) of the encoded protein. Nucleotides 1-96 correspond to exon 1d; nucleotides 97 - 1382 correspond to exon 2 to the stop codon in exon 9 (or nucleotides -2 - 1283 of the hVDR cDNA (1)).

FIGS. 7A-7D. Provides the nucleotide sequence corresponding to transcript 10 (see figure 1) (SEQ ID NO: 4), together with the predicted amino acid sequence (SEQ ID NO: 11) of the encoded protein. Nucleotides 1-96 correspond to exon 1d; nucleotides 97-244 correspond to exon 2; nucleotides 245-396 correspond to intronic sequence immediately 3' to exon 2; nucleotides 397-1534 correspond to exons 3 to the stop codon in exon 9 (or nucleotides 146-1283 of the hVDR cDNA (1)).

Replace the paragraph beginning at page 10, line 1 with the following:

FIGS. 8A-8D. Provides the nucleotide sequence corresponding to transcript 11 (see figure 1) (SEQ ID NO: 7), together with the predicted amino acid sequence (SEQ ID NO: 12) of the encoded protein. Nucleotides 1-207 correspond to exon 1f; nucleotides 208-1574 correspond to exon 1c to the stop codon in exon 9 (or nucleotides -83-1283 of the hVDR cDNA (1)).

IN THE CLAIMS

Replace the claims with the clean copy of their correspondingly numbered claims below. Add new claims 26-29.

1. (Amended) An isolated polynucleotide molecule encoding a human vitamin D receptor (hVDR) isoform, said polynucleotide molecule comprising i) a nucleotide sequence having 95% or more

